In the Claims

Please amend claims 1-3 as follows:

1. (Currently amended) A device for continuously measuring multiple properties from a variety of fluids in motion, comprising:

a fluid inlet;

~~an optimally dimensioned~~ a fluid path that is optimally dimensioned so that the multiple properties can be measured;

at least three sensors positioned at different positions in the fluid path, each of which can measure at least one of the properties;

a data acquisition and analysis means for accurately determining the multiple properties of a variety of fluids in motion; and

a fluid outlet,

wherein said at least three sensors measure the pressure and optionally the temperature of said variety of fluids in motion; wherein at least two of the said at least three sensors are pressure sensors and wherein data acquired from said at least three sensors is analyzed in order to calculate the properties relating to the variety of fluids in motion, said properties selected from the group [[comprising;]] consisting of viscosity, density, velocity, flow rate, pressure and temperature.

2. (Currently amended) A fluid flow measuring device comprising a recessed fluid pathway to ~~optimally~~ receive a fluid in motion for precise measurements of at least three properties selected from the group [[comprising;]] consisting of viscosity, velocity, density, temperature and pressure, wherein the recessed fluid pathway optimally receives the fluid for the precise measurement of the at least three properties.

3. (Currently amended) A method for continuously measuring properties of a variety of fluids in motion comprising the steps of:

pumping a fluid in motion into a flow block comprising an ~~optimally dimensioned~~ recessed flow path, the flow path being optimally dimensioned to measure the properties;

sensing a variety of parameters of said fluid in motion using a series of sensors ~~optimally~~ positioned within said recessed flow path, the sensors being optimally positioned to sense the variety of parameters, the parameters being chosen so that the properties can be determined from the sensed parameters;

acquiring data directly from the sensors and analyzing said data using a matrix; and

using said analyzed data to report properties relating to said fluid in motion, said properties selected from the group [[comprising;]] consisting of viscosity, density, velocity, flow rate, pressure and temperature.

Please add the following new claims:

4. (New) The device of claim 1 wherein the liquid is selected from the group consisting of soda water, sugar-containing syrup for a cola drink, and diet syrup for a cola drink.

5. (New) The device of claim 4 wherein the liquid is soda water.

6. (New) The device of claim 4 wherein the liquid is sugar-containing syrup for a cola drink.

7. (New) The device of claim 4 wherein the liquid is diet syrup for a cola drink.

8. (New) The device of claim 2 wherein the liquid is selected from the group consisting of soda water, sugar-containing syrup for a cola drink, and diet syrup for a cola drink.

9. (New) The device of claim 8 wherein the liquid is soda water.

10. (New) The device of claim 8 wherein the liquid is sugar-containing syrup for a cola drink.

11. (New) The device of claim 8 wherein the liquid is diet syrup for a cola drink.

12. (New) The method of claim 3 wherein the liquid is selected from the group consisting of soda water, sugar-containing syrup for a cola drink, and diet syrup for a cola drink.

13. (New) The method of claim 12 wherein the liquid is soda water.

14. (New) The method of claim 12 wherein the liquid is sugar-containing syrup for a cola drink.

15. (New) The method of claim 12 wherein the liquid is diet syrup for a cola drink.

16. (New) The device of claim 1 wherein at least one of the three properties is pressure.

17. (New) The device of claim 16 wherein the pressure is measured by at least one differential pressure sensor.

18. (New) The device of claim 2 wherein at least one of the three properties is pressure.

19. (New) The device of claim 18 wherein the pressure is measured by at least one differential pressure sensor.

20. (New) The method of claim 3 wherein at least one of the three properties is pressure.

21. (New) The method of claim 20 wherein the pressure is measured by at least one differential pressure sensor.

22. (New) The device of claim 1 wherein at least one of the three properties is temperature.

23. (New) The device of claim 2 wherein at least one of the three properties is temperature.

24. (New) The method of claim 3 wherein at least one of the three properties is temperature.

25. (New) The device of claim 1 wherein pressure and temperature are measured for different fluids in order to generate a matrix containing flow rate, temperature, and pressure for the fluids.

26. (New) The device of claim 2 wherein pressure and temperature are measured for different fluids in order to generate a matrix containing flow rate, temperature, and pressure for the fluids.

27. (New) The method of claim 3 wherein pressure and temperature are measured for different fluids in order to generate a matrix containing flow rate, temperature, and pressure for the fluids.

28. (New) A device for continuously measuring multiple properties from a variety of fluids in motion comprising:

(a) a flow body including:

(i) a base member having attached thereto a fluid inlet and a fluid outlet; and

(ii) a flow block including therein:

(A) a recess to define a fluid path when the flow body is assembled, the fluid path being from the fluid inlet to the fluid outlet; and

(B) a plurality of sensor port holes;

(b) a plurality of pressure sensors inserted in the sensor port holes to measure pressure at different positions within the flow path;

(c) a temperature sensor;

(d) means for acquiring and analyzing data from the sensors so that the analyzed data is used to report properties relating to the fluid in motion, the properties selected from the group consisting of viscosity, density, velocity, flow rate, pressure and temperature.

29. (New) The device of claim 28 wherein the flow body further includes means for reducing development of vortices in fluid leaving the flow body.

30. (New) The device of claim 28 wherein the recess is shaped to generally form an initial semi-circular entry that gradually tapers out towards a thin rectangular cross-section for fluid flow that forms a larger semi-circular end.

31. (New) The device of claim 28 wherein the flow block guides the fluid from the fluid inlet through a right angle turn expanding to a rectangular cross-sectional area that is smaller than a circular cross sectional area of the fluid inlet.

32. (New) The device of claim 28 wherein the liquid is selected from the group consisting of soda water, sugar-containing syrup for a cola drink, and diet syrup for a cola drink.

33. (New) The device of claim 32 wherein the liquid is soda water.

34. (New) The device of claim 32 wherein the liquid is sugar-containing syrup for a cola drink.

35. (New) The device of claim 32 wherein the liquid is diet syrup for a cola drink.

36. (New) The device of claim 28 wherein the pressure sensors are differential pressure sensors.

37. (New) The device of claim 28 wherein pressure and temperature are measured for different fluids in order to generate a matrix containing flow rate, temperature, and pressure for the fluids.

38. (New) The device of claim 28 wherein the temperature sensor is a thermistor.

39. (New) The device of claim 28 wherein the means for acquiring and analyzing data from the sensors includes a circuit board making contact with the pressure sensors and the temperature sensor and a circuit board to drive the pressure sensors and the temperature sensor.

40. (New) The device of claim 28 wherein means to reduce the cross-sectional area of the flow path are inserted into the flow path adjacent to the fluid outlet.

41. (New) The device of claim 40 wherein the means is a pitot tube port.

42. (New) The device of claim 28 wherein the pressure sensors are micro-electromechanical sensor pressure sensor elements.